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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

PEACHES, RANDY

ART UNIT

PAPER NUMBER

2617

NOTIFICATION DATE

DELIVERY MODE

06/25/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

vjp-us@vjp.de
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Office Action Summary	Application No. 10/595,245	Applicant(s) CHOI, HYUNG-NAM	
	Examiner RANDY PEACHES	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 June 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 19 and 22-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 19 and 22-44 is/are rejected.
- 7) ☒ Claim(s) 37 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6/2/2010 has been entered.

Claim Objections

1. **Claim 37** is objected to because of the following informalities: **Claim 37** is dependent upon a cancelled "**claim 20**". Examiner suggests that **claim 37** should depend on **claim 22**. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. **Claims 33 and 35** are rejected under 35 U.S.C. 102(e) as being anticipated by Chang (U.S. Patent Number 7,359,345 B1).

Regarding **claim 33**, Chang et al. discloses a communication system, comprising:

Art Unit: 2617

- at least one base station (BS), which is controlled by a higher-order radio network control entity (RNC). See column 9 lines 28-53; and
- a radio cell (CE) served by the base station (BS) in which there exists a communications connection between the base station (BS) and at least one user terminal equipment (UE) over an air interface (Uu) with a UMTS protocol structure. See column 4 lines 50-67 and column 5 line 1-13;
- wherein a plurality of RRC functionalities are disposed in the form of at least one control and/or data processing means transferred the radio network control entity RNC to the base station (BS). See column 5 lines 60-67 and column 6 lines 1-9

Regarding **claim 35**, as the combination of Chang and 3GPP are made, the combination according to **claim 33**, Chang et al. continues to disclose wherein comprising a plurality of special signaling transport blocks (STB) and two different transport block formats are provided, MAC PDU and MAC SDU. See column 8 lines 50-61.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. **Claims 19, 21-26, 29-31, 36 and 39** are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang (U.S. Patent Number 7,359,345 B1) in view of *Cao et al* (European Patent Number EP 0993 137).

Regarding **claim 19**, Chang et al. discloses the signaling between the MAC transmitting entity and the MAC receiving entity operating in accordance with the Universal Mobile Telecommunications System standard (UMTS), comprising performing in-band signaling, whereby Chang et al. teaches in that a MAC signaling message is sent containing both control and signaling information (see column 6 lines 30-34), of information relevant to the UMTS base station (BS) at the MAC layer level. See column 6 lines 25-39. Chang et al. continues to disclose wherein introducing a plurality of signaling transport blocks (STB) for signaling between a user terminal equipment (UE) and a particular UMTS base station (BS) at the MAC layer level. See column 8 lines 50-67, column 9 lines 11-27 and FIGURE 11.

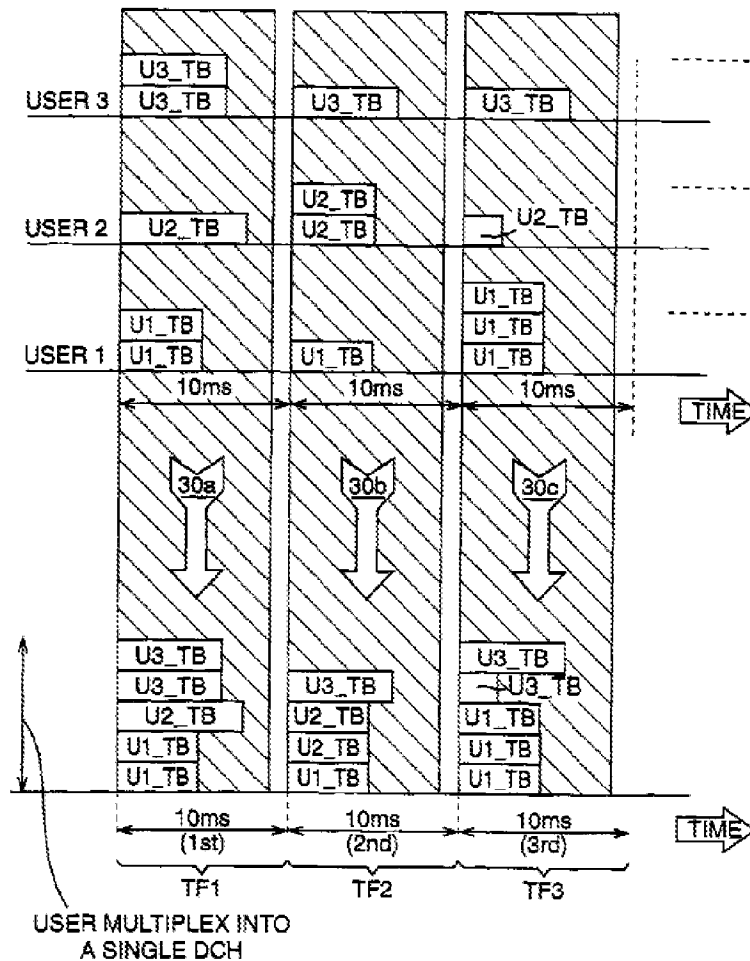
However, Chang fails to clearly render sufficient support as to the in-band signaling between a user terminal equipment (UE) and a respective UMTS base station (BS) a signaling transport block is introduced at the MAC layer level, wherein at least one signaling transport block (STB) is multiplexed within the transport blocks of a transport channel that are to be transmitted.

Cao discloses a method of transmitting data whereby transport blocks, i.e. data blocks, are multiplexed together on the data streams for each given time frame. According to paragraphs [0024 and 0029], a multiplexor (20), multiplexes the data

Art Unit: 2617

packets, which reads on claim "STB," into a single signal, which reads on claim "transport channel." Please reference also the below figure.

FIG. 4



Therefore, at the time the invention was made one of ordinary skill in the art would have modified Chang to include Cao in order to multiplex the incoming transport blocks into transport channels for a more efficient means of transmitting signals between user terminals and a base station.

Art Unit: 2617

Regarding **claim 21**, as the combination of Chang and Cao et al. are made, the combination according to **claim 19**, Chang et al. continues to disclose wherein at least one signaling transport block (STB) is multiplexed within the transport blocks of a transport channel that are to be transmitted. See column 6 lines 47-50 and FIGURE 19, column 11 lines 58-67.

Regarding **claim 22**, as the combination of Chang and Cao et al. are made, the combination according to **claim 19**, Chang et al. continues to disclose wherein a dedicated or common transport channel is used. See column 9 lines 3-10.

Regarding **claim 23**, as the combination of Chang and Cao et al. are made, the combination according to **claim 19**, Chang et al. continues to disclose wherein at least one signaling transport block (STB) transmits, in the field (TN UL), an uplink transmission number which is used for tracking the transmission status in the uplink, said field being k bits long. See FIGURE 17, column 11 lines 35-43.

Regarding **claim 24**, as the combination of Chang and Cao et al. are made, the combination according to **claim 19**, Chang et al. continues to disclose wherein at least one signaling transport block (STB) transmits, in a field (TN DL), a downlink transmission number which is used for tracking the transmission status in the downlink, said field being k bits long. See FIGURE 13 and 14, column 9 lines 28-53.

Art Unit: 2617

Regarding **claim 25**, as the combination of Chang and Cao et al. are made, the combination according to **claim 19**, Chang et al. continues to disclose wherein at least one signaling transport block (STB) transmits a field (Poll) in order to request an acknowledgment of successful transmission of a signaling transport block within a specified time from the receiver, said field being k bits long. See column 12 lines 20-28.

Regarding **claim 26**, as the combination of Chang and Cao et al. are made, the combination according to **claim 19**, Chang et al. continues to disclose wherein at least one signaling transport block (STB) transmits a field (MT) in which a message type is specified which is transmitted in the following message part, said field being 1-bit coded, whereby an indication bit details whether a MAC PDU or MAC SDU is being transmitted. See column 8 lines 50-61.

Regarding **claim 29**, as the combination of Chang and Cao et al. are made, the combination according to **claim 19**, Chang et al. continues to disclose wherein a signaling transport block (STB) transmits a field (Pad) which is used for padding out the unused part in the MAC Service Data Unit (MAC SDU) with dummy bits. See FIGURE 12.

Regarding **claim 30**, as the combination of Chang and Cao et al. are made, the combination according to **claim 19**, Chang et al. continues to disclose wherein comprising exchanging, in the signaling transport block (STB), various radio resource

Art Unit: 2617

control messages between the base station (BS) and a user equipment (UE). See column 6 lines 40-57.

Regarding **claim 31**, as the combination of Chang and Cao et al. are made, the combination according to **claim 19**, Chang et al. continues to disclose wherein comprising introducing, in the MAC header, a data field (D/C) that indicates the type of a particular transport block. See column 8 lines 35-44.

Regarding **claim 36**, as the combination of Chang and Cao are made, the combination according to **claim 19**, Chang et al. continues to disclose wherein a memory for storing instructions that when executed by a data processing system, allows said data processing system, in conjunction with a communication system to appropriately implement according to a UMTS standard. See ABSTRACT and column 6 lines 25-39.

Regarding **claim 39**, as the combination of Chang and Cao are made, the combination according to **claim 19**, Chang continues to teach in section 4.3.2.3, wherein the signaling transport block is transmitted using CDMA via an air interface.

2. **Claims 37-38 and 40-44** are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang (U.S. Patent Number 7,359,345 B1) in view of *Cao et al* (European Patent Number EP 0993 137). in further view of 3GPP TS 25.321 version 5.6.0, hereinafter referenced as 3GPP.

Regarding **claim 37**, as the combination of Chang and 3GPP are made, the combination according to **claim 22**, the combination fails to teach wherein the dedicated transport channel is a DCH.

3GPP continues to teach in section 4.3.2.3, wherein the dedicated transport channel is a DCH.

Therefore, at the time the invention was made one of ordinary skill in the art would have modified the combination of Chang and Cao to further include the 3GPP in order to provide the dedicated channel be a DCH.

Regarding **claim 38**, as the combination of Chang and Cao are made, the combination according to **claim 19**, the combination fails to teach wherein the information comprises one or more of the following list:

- information for a user equipment to reconfigure the physical channels in the uplink and the downlink; information for a user equipment to reconfigure the transport format and transport format combinations in the uplink and downlink;
- information for a user equipment about the buffer status of the radio bearers or logical channels which are multiplexed into the transport channel.

3GPP continues to teach in section 8.2.2, wherein the information comprises one or more of the following list:

Art Unit: 2617

- information for a user equipment to reconfigure the physical channels in the uplink and the downlink; information for a user equipment to reconfigure the transport format and transport format combinations in the uplink and downlink;

- information for a user equipment about the buffer status of the radio bearers or logical channels which are multiplexed into the transport channel.

Therefore, at the time the invention was made one of ordinary skill in the art would have modified the combination of Chang and Cao to further include the 3GPP in order for the information for a user equipment about the buffer status of the radio bearers or logical channels which are multiplexed into the transport channel.

Regarding **claim 40**, as the combination of Chang and Cao are made, the combination according to **claim 19**, the combination fails to teach wherein the signaling transport block is transmitted in FDD mode.

3GPP continues to teach in section 9.2.1, wherein the signaling transport block is transmitted in FDD mode.

Therefore, at the time the invention was made one of ordinary skill in the art would have modified the combination of Chang and Cao to further include the 3GPP in order to provide the STB is in FDD mode.

Regarding **claim 41**, as the combination of Chang and Cao are made, the combination according to **claim 19**, the combination fails to teach wherein signaling transport block is transferred to the physical layer.

3GPP continues to teach in section 6.1, wherein the signaling transport block is transferred to the physical layer.

Therefore, at the time the invention was made one of ordinary skill in the art would have modified the combination of Chang and Cao to further include the 3GPP in order to provide a means for selecting the transport channel for transmitting the signaling blocks.

Regarding **claim 42**, as the combination of Chang and Cao are made, the combination according to **claim 19**, the combination fails to teach wherein the in-band signaling is carried out for one or more of the following RRC functions of the base station:

- reconfiguration of physical channels in the uplink and downlink;
- reconfiguration of the transport formats and the transport format combinations in the uplink and downlink;
- switching of the transport channel type, i.e. from common transport channels to dedicated transport channels and vice versa;
- setting of the uplink SIR target for fast performance control of dedicated physical channels.

3GPP continues to teach in section 4.3.2.3, wherein the in-band signaling is carried out for one or more of the following RRC functions of the base station:

- reconfiguration of physical channels in the uplink and downlink;
- **reconfiguration of the transport formats and the transport format combinations in the uplink and downlink;**

Art Unit: 2617

- switching of the transport channel type, i.e. from common transport channels to dedicated transport channels and vice versa;
- setting of the uplink SIR target for fast performance control of dedicated physical channels.

Therefore, at the time the invention was made one of ordinary skill in the art would have modified the combination of Chang and Cao to further include the 3GPP in order to provide a means for having a common signaling format when the STB' s are multiplexed together.

Regarding **claim 43**, as the combination of Chang and Cao are made, the combination according to **claim 19**, the combination fails to teach wherein a transport channel is selected for transmitting the signaling transport blocks.

3GPP continues to teach in section 4.3.2.3, wherein a transport channel is selected for transmitting the signaling transport blocks.

Therefore, at the time the invention was made one of ordinary skill in the art would have modified the combination of Chang and Cao to further include the 3GPP in order to provide a means for selecting the transport channel for transmitting the signaling blocks.

Regarding **claim 44**, as the combination of Chang and Cao are made, the combination according to **claim 19**, the combination fails to teach wherein a transmission counter is increased by 1 after sending the signaling transport block.

3GPP continues to teach in section 9.2.31, wherein a transmission counter is increased by 1 after sending the signaling transport block.

Therefore, at the time the invention was made one of ordinary skill in the art would have modified the combination of Chang and Cao to further include the 3GPP in order to provide a means for increasing the transmission counter by one after sending a said STB.

Allowable Subject Matter

Claims 27-28 and 32 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments with respect to ***claims 19 and 22-44*** have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RANDY PEACHES whose telephone number is (571) 272-7914. The examiner can normally be reached on Monday - Friday.

Art Unit: 2617

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Appiah can be reached on (571) 272-7904. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Randy Peaches/
Examiner, Art Unit 2617

/Charles N. Appiah/
Supervisory Patent Examiner, Art Unit 2617